



# **Geologic Hazard Areas**

DR005b

# What is a Geologic Hazard Area?

Areas susceptible to erosion, sliding, earthquake or other geological events. Geologic Hazard Areas are classified as:

- (1) Erosion Hazard Areas
- (2) Landslide Hazard Areas
- (3) Seismic Hazard Areas
- (1) Erosion Hazard Areas: Lands or areas underlain by soils identified by the U.S. Department of Agriculture Soil Conservation Service (SCS) as having "severe" or "very severe" rill and inter-rill erosion hazards. Rill erosion occurs when development of a concentrated flow of water in a very small channel that begins to cut into the soil surface producing a rill. Inter-rill erosion is caused by the impact of rain on the surface.
- (2) Landslide Hazard Areas: Areas potentially subject to significant or severe risk of landslides based on a combination of geologic, topographic and hydrogeologic factors. They include areas susceptible because of any combination of bedrock, soil, slope, slope aspect, structure, hydrology, or other factors. Geologic Hazard areas include any area with a slope 40 percent or steeper with a vertical relief of 10 feet or more
- (3) Seismic Hazard Areas: Lands subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, soil liquefaction, or surface faulting.



Alteration of geologically hazardous areas or their established buffers may only be permitted subject to the criteria in RZC 21.64.060

# **NOTE**

Landslide Hazard
Areas have a
minimum required
buffer of 50 feet.
Buffer can be reduced
to 15 feet with a
professional technical
study.

How do I find a Geologic Hazard Area on my property?

 Redmond Zoning Code Critical Areas maps for Landslide, Seismic & Erosion Hazard Maps, located online at::

www.redmond.gov/zoningcode

- USGS landslide hazard and seismic hazard maps
- Department of Natural Resources (DNR) seismic hazard maps for Western Washington and slope stability maps

# How can you alter a Geologically Hazardous Area?

Erosion Hazard Areas Alteration may occur for activities when a geotechnical analysis is submitted and certified that the development shows:

- (a) No increase in surface water discharge or sedimentation to adjacent properties beyond predevelopment conditions;
- (b) No decrease in slope stability on the subject and adjacent properties;and

(c) No adverse impact to other critical areas.

#### **Landslide Hazard Areas**

Alteration is prohibited except for installation and/or construction of streets and utilities that are adopted as part of a City plan. Such proposals must obtain approval by the Hearing Examiner.

### Seismic Hazard Areas:

(a) For one-story and two-story residential structures, the applicant

shall conduct an evaluation of site response and liquefaction potential based on the performance of similar structures under similar foundation conditions; and

(b) For all other proposals, the applicant shall conduct an evaluation of site response and liquefaction potential including sufficient subsurface exploration to provide a site coefficient (S) for use in the static lateral force procedure described in the International Building Code.

# **General Requirements for Alteration**

When alteration is permitted on a site, applicants must demonstrate that risks of damage are minimized through submittal of prepared studies. The submitted study must be prepared by a qualified consultant such as geotechnical engineer or geologist. Additionally, a statement must be recorded on the deed or plat plan notifying potential owners of the geologic hazard and the possible risks associated with development.

# **Additional questions or assistance filing out paperwork**

If you need additional assistance, please do not hesitate to contact the Planner On Call at 425-556-2494 or via email at planneroncall@redmond.gov. You can also visit us in person in the Development Services Center on the 2nd floor of City Hall between 8:00 am. to 5:00 p.m. Monday through Friday.

The RZC can be accessed online at: www.redmond.gov/DSC

NOTE: This handout is for informational use only and is not be substituted for the Redmond Zoning Code

**Applicable Code Sections** 

RZC 21.64.060: Geologically Hazardous Areas

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